# IGC-Bangladesh Projects of Relevance to Bihar

A. Mushfiq Mobarak Yale University



#### Outline

- Results from a migration program in north-west Bangladesh sponsored by IGC
- Idea for a similar migration project linking workers from Bihar to jobs in Tamil Nadu
  - History and Patterns of Migration from Bihar
  - Labor demand at tea plantations in Tamil Nadu
  - Progress on collaboration with Tea Estates India Ltd
- (if there's time) The Garments Sector in Bangladesh and Links to Girls' Education

#### The Policy Issue: A Seasonal Famine in Rangpur

Famine strikes at Shunaqulir Char: Mother and Daughter go on hungry for days

Translated from Daily Jankantha dated 2nd Nov, 2005)





Picture (courtesy Daily Janakantha): Left: A woman showing the condition her hunger stricken grand child. Right: A person namely Matiar died while standing in line for Aid.

- Rangpur districts are poor (incomes ~60% of rest of country)
- Pronounced seasonality (~40% income drop before Aman harvest)
- Pre-harvest (Sept-Nov), job opportunities are limited, wages are low, grain prices are high.
- Some parallels in data: Rangpur: Bangladesh :: Bihar: India

### Puzzles and Project Goal

- Remittances into the north-west is the lowest in the country
- Jobs available and wages higher in nearby urban areas (Zug 2008)
- Government and NGO responses have focused on FFW, VGF, targeted microcredit even though there is greater inter-regional than inter-seasonal variation in incomes (Khandker 2010)
- Specific Policy Goal of our project:
   Can seasonal migration mitigate the effects of the seasonal famine
- "Hungry seasons" affect hundreds of millions around the world (Malawi, Madagascar, Ethiopia, Kenya,...)

#### Experiment

- In 2008, provided households with a small transfer conditional on migration Tk 600 + 200 (\$8.50+\$2.50)
- Randomly allocated across 100 villages (1900 hh)
  - Cash Grant (37 villages)
  - Credit (31 villages)
  - Information/endorsement (16 villages)
  - Control (16 villages)
- Program implemented by umbrella organization for microcredit NGOs

### Program Evaluation

#### • Take-Up

Migration rate under cash or loan: 58%. Control or Information
 Treatment: 35%

#### Effects on Consumption at the Origin

- If you are induced to migrate, food and non-food consumption of family members remaining at origin increases 30-35%
- Caloric intake increases 700 Calories per person per day
- Magnitude of consumption effects much larger than the \$8.50 transfer

#### Effects at the Destination

- Migrants earn \$110 on average at the destinations (on a \$6-\$8 investment)
- They are able to save about half of that, and they remit/return in between
- Wages higher than at origin, even conditioning on the employed at origin

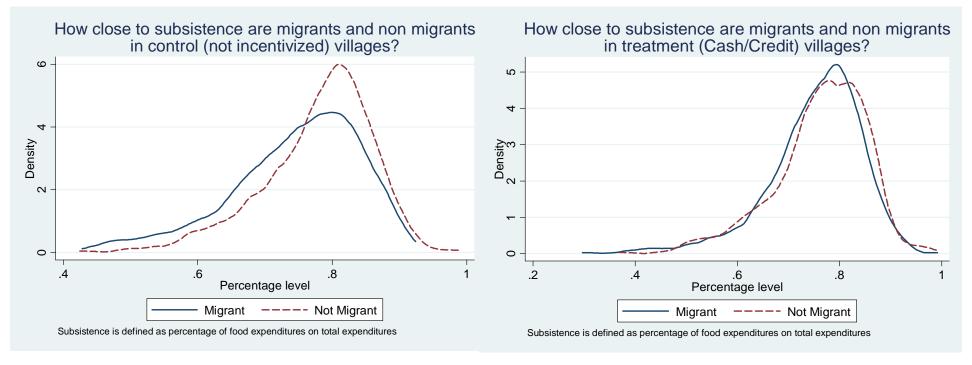
### Voluntary Re-migration

- Program implemented in November 2008 for the 2008 Monga season
- No program in 2009/2010, but we tracked longer-run migration patterns *using IGC funds*
- Migration rate in treatment villages continue to be significantly higher (47% vs 35%) even after inducement is removed.

### Why didn't people migrate?

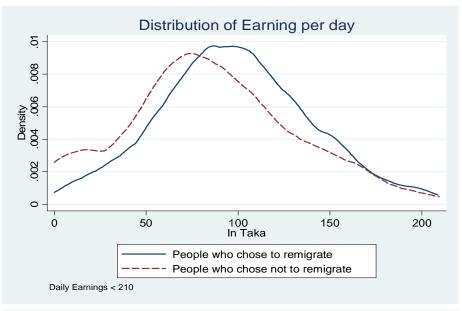
- Even if expected return to migration is positive, a small probability failure may be devastating and carry large weight if the utility function is steep around that point
- Inducing inaugural migration allows migrants and employers to learn
- Evidence in favor of Risky Experimentation Model:
  - Induced migrants less likely to have job leads, social network presence, less likely to travel alone
  - People close to subsistence don't migrate, but are most responsive to the intervention
  - Clear evidence of learning: follow your successful friends

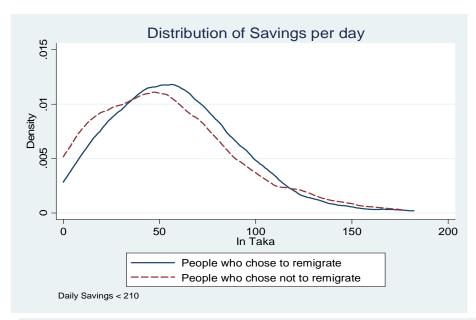
### Who Chooses to Migrate?

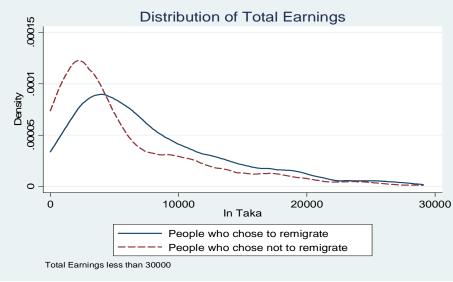


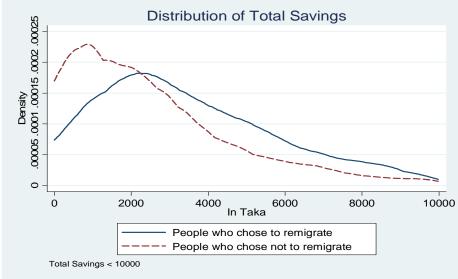
- In general, people closer to subsistence are less likely to migrate (control villages)
- But those households are more responsive to our incentives (treatment villages)

### Learning: Who re-migrates in 2009?









#### Implications for Bihar and India

- <u>Micro-credit</u> may have broader role: Not everyone is an entrepreneur, but credit can allow people to get to jobs.
- We need <u>insurance</u> against devastation to allow people to experiment with new technologies and ideas. Proposed model applicable to other technologies where the downside is potentially devastating.
  - New varieties of seeds (slow diffusion of Green Revolution)
  - New business start-ups and entrepreneurial ventures
- <u>Seasonal Migration</u> is a common practice to diversify away from agriculture (Banerjee and Duflo 2006)
- The people and economy of Bihar historically dependent on <u>Permanent and Temporary Out-Migration</u>. But it's risky. We need to find ways to let people experiment and learn.

### Migration in Bihar

- 5.2 million migrants from Bihar (IIPA)
  - "Out-migration for employment sake has now become a craze in rural Bihar...nearly <u>one-third</u> of the households. So much so that now staying at village is equated with laziness among the fellow villagers," WSJ 2010
- Patterns [Deshingkar et al (2006) ODI, Chaudhury (1992), De Haan 2002]
  - Poorest of the poor and landowners/businessmen don't migrate
  - Educated and wealthy migrate permanently, but vast majority for 3-9 months and engage in farm and construction work, rickshaw-pulling
  - Incidence of out-migration from Bihar largest in India
- Migrants have always faced large risks and challenges
  - 1881-1911: "only a small section could earn enough to save...1661 of 2175 returned emigrants from Jamaica, Fiji, Africa...brought nothing back.
  - Men travel alone. Home sickness.

#### Recruitment for Tamil Nadu Tea Plantations

- Large transaction costs: employers have to pay large fees to be "introduced" to communities. Workers have to share proceeds with "agents"
- Just at one company Tea Estates India Limited, they have capacity to employ at least 3000 workers year-round
- TEIL recruited from Tamil Nadu in 2007, but gave up due to the high cost. They are currently recruiting from MP.

#### Progress with TEIL

- Shuba Chandran, CEO and MD of Woodbrian Group very interested in collaborating on a project with ADRI (and/or local NGOs) to recruit workers from Bihar.
- They are ready to provide jobs, transportation costs, wages plus accommodation/cooks/ benefits/medical care for workers
- Interested in research, willing to randomize
- We could take this forward collaboratively

#### Garment Industry

- Started as a historical 'accident' in Bangladesh
- The industry was virtually non-existent in 1980, but now accounts for the vast majority of Bangladesh's exports and foreign exchange earnings
- "Accidents" can be manufactured with careful policy design

## The Garment Industry and Girls' Schooling

- This graph shows that girls schooling rose in garment villages (relative to non-garment villages) beginning in the early 1980's, when the garment industry started its rapid growth
- We estimate that a 10 percent increase in the number of garment jobs increases the probability that a girl is in school by .231 percentage points.
- The effect is particularly strong among young girls, since older girls may drop out of school to access the jobs immediately
- We estimate that the garment sector's contribution to the increased girls' schooling between 1980 and 2010 is approximately 5 times as large as the effects of the Girl's School Subsidy

Percent of girls 5 to 18 enrolled in school garment vs. non-garment villages

